

5 What is claimed:

1. A mixed cut gemstone having an eight sided girdle comprising:

a) a pavilion, wherein

- said pavilion is step cut;

- said pavilion further comprising of step cuts, arranged at a slight angle to each

10 other, wherein said pavilion further comprises

- a multitude of steps, where said steps are substantially equally spaced,

- said pavilion further comprises of rib lines, wherein said rib lines

subdivide said pavilion into equal parts and said rib lines converge at a

culet;

15 2. The gemstone of Claim 1, including a crown, where said crown is brilliant cut, said crown further comprising

- right corner facets, wherein said corner facets are shaped as triangles,

- right upper girdle facets, wherein said upper girdle facets are shaped as triangles;

- a table, wherein said table has sides conjoining with said corner facets and

20 vertices as vertices of said upper girdle facets;

b) a culet, wherein said culet is a locus of conversion of said rib lines.

3. The mixed cut gemstone of Claim 1, where said culet is a line or a point.

4. The mixed cut gemstone of Claim 1, where said crown contains said table shaped in an form of a diamond.

25 5. The mixed cut gemstone of Claim 1, wherein said corner facets have an inclination of 40 to 50 degrees pf arc with respect to a plane of said girdle.

- 5 6. The gemstone cut of Claim 1, wherein said corner facets are either equilateral or isosceles triangles and are in equivalent.
7. The mixed cut gemstone of Claim 1, wherein said four said upper girdle facets have and inclination of 45 to 55 degrees of arc with respect to said a plane of said girdle.
8. The mixed cut of gemstone of Claim 1, wherein said four upper girdle facets are either
10 equilateral or isosceles triangles and are equivalent.
9. The mixed cut gemstone of claim 1, wherein a length of said girdle plane is twice a width of said girdle plane.
10. The mixed cut gemstone of Claim 1, where said length of said girdle plane is equal to said width of said girdle plane.
- 15 11. The mixed cut gemstone of Claim 1, wherein said crown further comprises of table breaks and girdle breaks,
- said table breaks divide said table and said corner facets;
 - said girdle breaks divide said upper girdle facets and said corner facets and said girdle plane.
- 20 12. The mixed cut gemstone of Claim 1, wherein said culet is a line and it is approximately one half of the length of said girdle.
13. The mixed cut gemstone of Claim 1, wherein a depth of said girdle is one twentieth of said length of said girdle.
14. The mixed cut gemstone of Claim 1, wherein a depth of said crown is one tenth of
25 said length of said girdle.
15. The mixed cut gemstone of Claim 1, wherein said table is in a form of a square and is

- 5 one forth the size of said girdle.
16. A mixed cut gemstone, comprising:
- a) a step cut pavilion, where said step cut pavilion further comprises
- a multitude of steps, where said steps are equally spaced
 - a culet, where said culet is either a point or a line;
- 10 b) a brilliant cut crown, where said crown further comprises
- a flat table;
 - four corner facets;
 - four upper girdle facets.
17. The mixed cut gemstone of Claim 15, where a girdle is right sided,
- 15 -
- said diamond has a width and a length, where said length is approximately twice the size of said width;
 - wherein the corners are approximately one third the length of the width of said gemstone.
18. The mixed cut gemstone of Claim 15, where said pavilion further comprises rib
- 20 lines,
- said rib lines divide said pavilion into eight sided;
 - said rib lines run from said girdle's eight sided shape to said culet line;
 - said rib lines converge at said culet point.
19. The mixed cut gemstone of Claim 15, where said table is of a diamond shape, said
- 25 table being slightly elevated from the surface of a girdle plane.
20. The mixed cut gemstone of Claim 15, where said mixed gemstone further

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comprises,

- said crown has a depth of one tenth of said length of said girdle,
- said girdle has a depth of one twentieth of said length of said girdle,
- said pavilion has a depth of one fourth of said length of said girdle.